

Health, Safety and Ergonomically Risk Assessment of Mechanics using Job Safety Analysis (JSA) Technique in an Iran City

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Abstract

Backgrounds: Automobile and automotive industries in developed and developing countries are important. There are many harmful factors in mechanics workplaces such as chemical and physical agents, ergonomics factors, mechanical and biological factors. **Objectives:** This study aimed to identify safety, health and ergonomically hazards and recommend the control measures in the automotive repair shops in Tekab city in Iran. **Methods:** Sixty-three car repair shops in the Tekab city were identified. The researchers with the participation of employees broke any of jobs into their constituent tasks and steps. Then the researchers identified each step hazards and calculated related risks. Finally based on the risk assessment and risk priorities, the control measures were recommended. **Findings:** Nine jobs were identified. Inhalation of acid and soldering mist vapor and contact with unsafe equipment is the most important accident in the battery repairing and lathing job respectively. Fire caused by thinner, gasoline, paint and resin, severe trauma to the hands and feet, and contact with welding flame is the most important accident in the painting, car smooth working and repairing radiator job respectively. Fire caused by gasoline and motor oil is the most important accident in the oil changes and tire change and mechanical technician jobs. Falling car on person is the most important accident in the front part of car repair and absorbers and exhaust repair jobs. **Application/Improvements:** Job safety analysis is a useful method for identifying hazards at vehicle mechanics job. Using this method can identify hazards and finally recommends appropriate control measures.

Keywords: Accident, Automotive Industries, Control Measures, Hazard